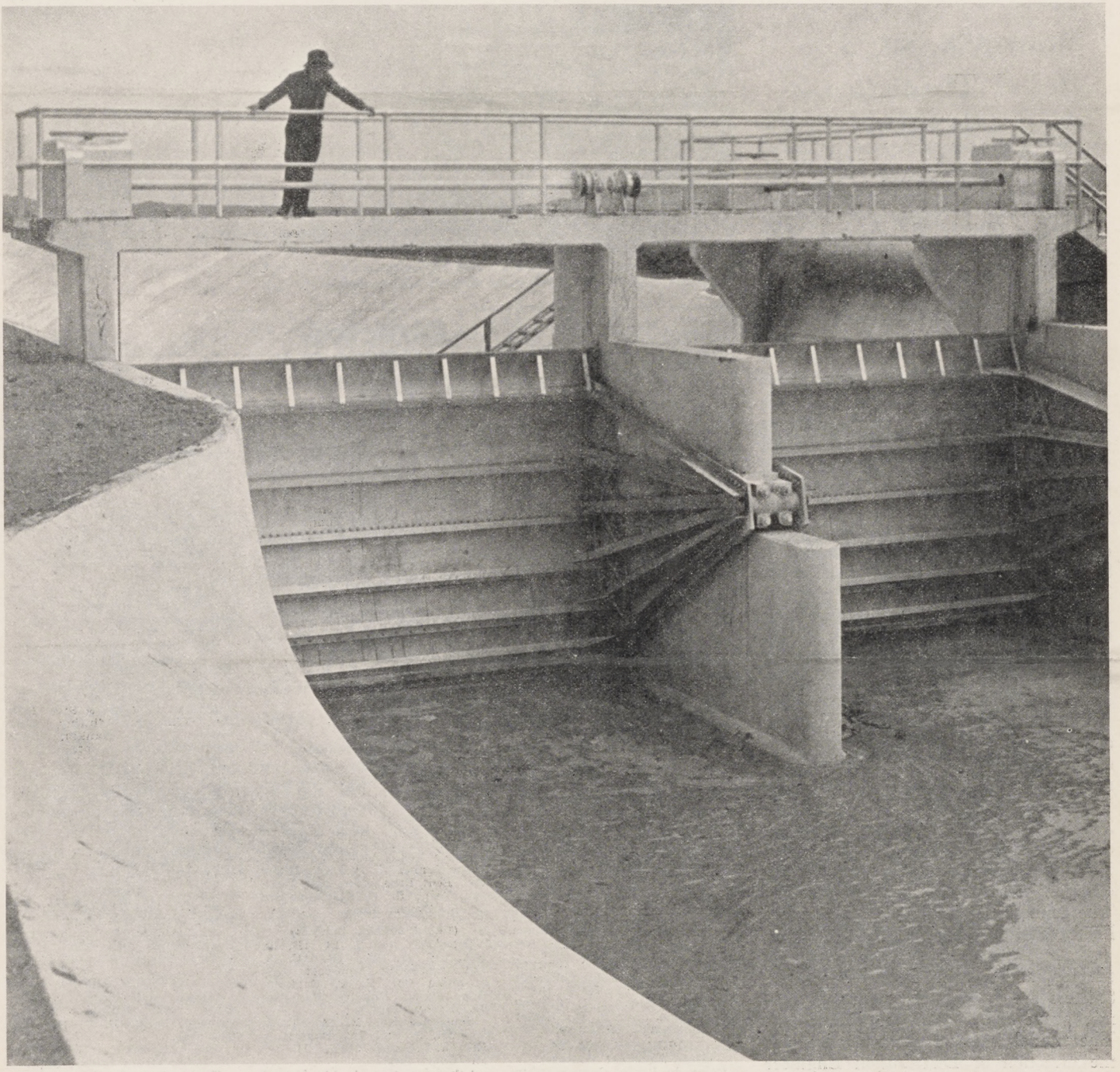
• COLORADO RIVER •

AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Vol. IV FEBRUARY 25, 1937 No. 4



An upstream view of the spillway control gates on a canal section near Rice. The gate to the spillway is on the right, and under the bridge. The mechanism is manually operated.

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AQUEDUCT NEWS
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

306 West Third St.
Los Angeles, California

Published twice monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

Vol. IV February 25, 1937 No. 4

Monrovia No. 3 Holed Through

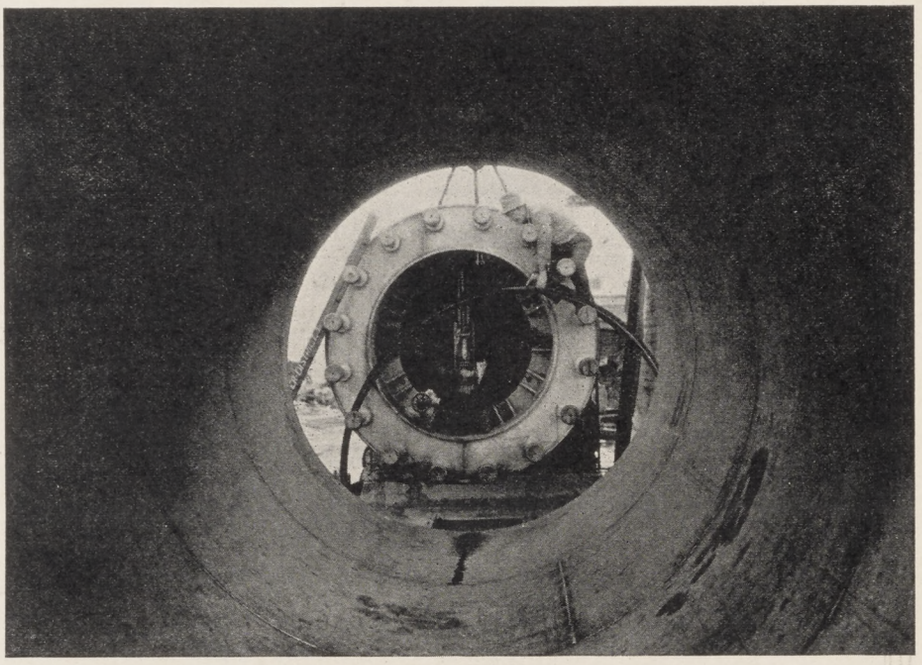
Excavation of the longest tunnel on the distributing system was completed on February 25 when, at 3:05 P. M. the last round was pulled in Monrovia tunnel No. 3. This tunnel, running between San Gabriel Canyon and Monrovia Canyon, is 32,105 feet long, which ranks it as the longest of the eight tunnels on the Distribution Division, and as one of the longest in the entire aqueduct system.

Starting on March 19, 1935, the excavation was completed just a few days short of two years. During most of this period, headings were operated at three points. One face was advanced eastward from the West Portal in Monrovia Canyon, and headings were worked east and west from an adit in Fish Canyon.

On October 15, 1936, the heading east of the adit was holed through to San Gabriel Canyon, and on December 20 the excavation west of the Fish Canyon Adit was discontinued. Since that time all excavations have been carried on from the West Portal. The point of holing through on February 25 was 14,852 feet east of the West Portal.

Under the direction of General Manager H. E. Carleton of the West Construction Co., the contractor's crews made their best progress on April 13, 1936, when they drove 54 feet in that 24-hour period. The best progress for one month was in March, 1936, when 1,210 lineal feet were excavated. All excavation was through rock formations. The tunnel is circular, and will have a lined diameter of 10 feet.

Peter Brisbois is superintendent on the job, and Luther Dennis is walker. Shifters are John Klefs, swing, J. Premo, graveyard, and Mike Ryan, day. The tunnel is being constructed under the direction of Distribution Engineer R. B. Diemer, and Resident Engineer George Baker.



Looking like the barrel and breach block mechanism of a huge gun, this is actually a picture of the inside of welded steel pipe section about to slide over the pressure testing machine at the Western Pipe and Steel Company's plant. These sections are being placed on Distribution Schedule 2S.

Directory

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Division 4.....R. C. Booth
Divisions 5 & 6.....J. B. Bond
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Transmission.....Robert N. Allen

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(Main Aqueduct Tunnels)
Colorado River, Copper Basin and Whipple Mt. Tunnels, Walsh Construction Co., L. M. Ramey, Tunnel Supt.

Coxcomb and East Iron Mt. Tunnels, Winston Bros., R. V. Johnson, Gen. Supt.

Iron Mt. Tunnel, West Portal, Utah Construction Co., Ben Arp, Gen. Supt.

East Eagle Mt. Tunnel and West Eagle Mt. Tunnel, east portion, Broderick & Gordon, John Will, Gen. Supt.

Coachella Tunnel, Dist. Force Acct., R. C. Booth, Gen. Supt.

East Coachella Tunnel and 1000 Palms Tunnel, Concrete, V. T. Davis, Supt., J. C. Fisher, General Foreman.

All Coachella Siphon Construction, M. Hjalmarson, Supt.

West Coachella Tunnels and Conduits, Concrete, Edwin Noon, Supt.

San Jacinto Tunnel, District Force Acct., B. C. Leadbetter, Gen. Supt.; A. L. Simpson, John Austin and C. E. Sides, Tunnel Supts.; Chas. F. Thomas, Jr., Supt.

Valverde Tunnel ,Dravo Contr. Co., R. W. Remp, Gen. Supt.

(Distribution Tunnels)

Monrovia Tunnels Nos. 1, 2 and 3, West Construction Co., H. E. Carleton, Gen. Supt.; O. V. Humason, Peter Brisbols and Luther Dennis, Tunnel Supts. Concrete Supt., E. M. Penn.

Pasadena Tunnel, San Rafael Tunnels Nos. 1 and 2, and Monrovia Tunnel No. 4, L. E. Dixon Co., Bent Bros., Inc., and Johnson, Inc., S. D. Hackley and W. N. Evans, Supts.

(Canal, Siphon, Conduit)

Schedules Nos. 1, 1A, 1B, 10, 10A, 10B, 11, 11A, 11B, 11C, 13, 13A, and 13B, Aqueduct Construction Co., S. T. Corfield, Gen. Supt.; Charles Harlowe, Jr., Excav. Supt.

Schedules Nos. 2, 2A, 2B, 3, 3A, 3B, 7, and 7A, Barrett & Hilp and Macco Corp.; H. W. McKinley, Supt.

Schedules Nos. 4, 4A, 5, and 5A, Jahn & Bressi Construction Co., Joseph Muscolo, Gen. Supt.; Dominick Bressi, Asst. Gen Supt.

Schedules Nos. 6, 8, 8A, and 8B, Clyde W. Wood and M. J. Bevanda, A. F. Weesner, Gen. Supt.

Schedules Nos. 9, 9A, 9B, and 9C, The Utah Construction Co., Ben Arp, Gen. Supt.

Schedules Nos. 12 and 12A, Three Companies, Inc., John Will, Supt.

Schedules Nos. 14, 15, and 16, Thompson - Starrett Co., Inc., Rodney Smith, Gen. Supt.; William Hayes, Excav. Supt.

Schedule 17, Dist. Force Acct., H. Hjalmarson, Supt., (Fan Hill).

Schedules Nos. 18, 19, and 20, J. F. Shea Co., Inc., J. G. Shea, Gen. Mgr.; H. F. Rennebohm, Supt.

Schedules Nos. 20A, 20B, 20C, 21, 22, and 23, The Griffith Co., Harry Davis, Supt.

(Distribution Pipe Line)

Schedules No. 4P and 5P, American Concrete & Steel Pipe Co., Wm. A. Whiting, Gen Supt.; D. H. Rankin, Plant Supt. and Const. Supt.

Schedules 6P and 7P, J. F. Shea Co., Inc., J. G. Shea, Gen. Mgr.; Ed. H. Shea, Gen. Supt.

Schedules 10P, United Concrete Pipe Corp., John Huber, Plant Supt.; Roy Richards, Const. Supt.

Schedules 2B and 2S, Western Pipe & Steel Co., L. L. White, Supt.

(Dams)

Cajalco dam, The Griffith Co., Harry Davis, Gen. Supt.

Parker dam, J. F. Shea Co., Frank Crowe, Gen, Supt.; E. A. Moritz, Constr. Eng., U.S.B.R.

(Pumping Plants)

Intake and Gene, Winston Bros. and Crowell, R. A. Crowell, Supt., F. T. Hillman, Engineer.

Iron Mountain, Wood and Bevanda; Grant Miner, Supt.

Eagle Mountain, L. E. Dixon Co.; S. H. Strohacker, Supt.

Hayfield, Dixon and Case; Crawford Strohacker, Supt.

A scene from the prologue of the "Empire of the West," new District motion picture soon to be released. Leo Carrillo plays the part of the Californian.

New Aqueduct Motion Picture To Be Released

Preview for Employees

"Empire of the West," a new motion picture dealing with the construction of the Colorado River Aqueduct, is scheduled to be released by the District in the early part of March. Tentative plans call for a preview showing of the picture to be attended by members of the Board of Directors, aqueduct employees, and friends. The exact date, and place, of this preview showing were not available as this issue of the NEWS went to press; however, bulletins will soon be posted in all camps and offices giving this information.

All Phases of Aqueduct

Covering all phases of the construction of the aqueduct, this film, a sound motion picture, is to be released on both 35mm and 16mm prints. The smaller size print is being made to be used with the portable projection equipment owned by the District. With this equipment, the picture will be shown to many hundreds of groups, including schools, service clubs, technical groups, and other interested parties throughout Southern California. The standard size print (35mm) will be available for release to theaters locally and throughout the country.

Taking approximately 25 minutes to show, the picture will graphically illustrate the task faced by the cities in the District in importing additional water from the Colorado River. The historical background and need for the Metropolitan Aqueduct is dramatically presented in the picture in a short prologue.

Leo Carrillo in Prologue

The lead in this prologue, is Leo Carrillo, who takes the part of the master of an early California rancho. Mr. Carrillo very graciously donated his services to the District in making this scene, which is dated in 1840. One of Hollywood's most famous actors, Mr. Carrillo lends an authentic air to the part inasmuch as he is descended from a line of early Californians, one of whom was a governor of the State before the coming of the Yankees.

Recent Construction Scenes

Nearly all of the construction scenes in the picture have been made within the last four months, and were taken along sections of the main aqueduct and the distributing system.

Photographed by Will N. Fox, staff photographer for the District, these construction sequences show the latest types of work now under way on the big job. Included are action pictures of canal construction, conduits, tunnels, transmission lines, pumping plants, Parker Dam and Cajalco Reservoir, and Distribution pipe lines.

Contract Awarded For New Siphons

Basich Brothers of Torrance were awarded a contract by the Board of Directors on February 19 for the construction of three siphons on the distributing system. To be constructed under specifications No. 189, the work will involve the building of schedules 8C, 9C, and 12C—cast-in-place concrete siphons. The contractor's bid for the three schedules totaled $205,040. The total cost of the work, including District furnished materials and services is estimated at $330,181.

Schedule 8C provides for the construction of a monolithic concrete siphon, 9-ft. 8-in. diameter and 521 feet long, connecting Monrovia Nos. 2 and 3 tunnels across the San Gabriel Canyon. Schedule 9C will be the same diameter, 601 feet long across Monrovia Canyon and connecting tunnels Nos. 3 and 4. Schedule 12C will be 7 feet in diameter, connecting San Rafael Nos. 1 and 2 tunnels across Eagle Rock Canyon.

Water flowing down the spillway of the Morris Dam in San Gabriel Canyon. Recent rains have filled the reservoir, which will be a part of the aqueduct system. This is the first time that the water level back of the dam has been high enough to reach the spillway.

TUNNELS

January 16th to February 15, 1937

TUNNEL EXCAVATION (MILES)

	Completed	Remaining
Aqueduct	87.26	4.85
Distribution	16.04	0.17
Total	103.30	5.02

*TUNNEL LINING (MILES)

	Completed	Remaining
Aqueduct	79.21	12.90
Distribution	7.23	8.94
Ttotal	86.44	21.84

*Arch considered to equal 0.9 completed section.

TUNNEL PROGRESS

CONTRACTOR	TUNNEL	LENGTH IN FEET	EXCAVATION IN FEET: NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAINING	LINING IN FEET: ARCH OR INVERT	NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAINING
AQUEDUCT—CONTRACT													
WALSH CONSTRUCTION CO.	COLORADO RIVER	5,482			Completed	5,482	0	Arch			0	5,475	7
								Invert			0	5,475	7
	COPPER BASIN NO. 1	705			Completed	705	0	Arch			0	696	9
								Invert			0	696	9
	COPPER BASIN NO. 2	11,568			Completed	11,568	0	Arch			0	11,568	0
								Invert			0	11,568	0
	WHIPPLE MOUNTAIN	(32,238)				(32,238)	(0)	Invert			0	32,229	9
	East from Adit	18,336			Completed	18,336	0	Arch			0	18,327	9
	West from Adit	13,902			Completed	13,902	0	Arch			0	13,902	0
WINSTON BROTHERS	IRON MT. (E. PORTION)	(23,645)				(23,645)	(0)						
	East from Shaft	9,902			Completed	9,902	0	Invert			0	9,902	0
								Arch			0	9,902	0
	West from Shaft	13,743			Completed	13,743	0	Invert			0	13,743	0
								Arch			0	13,743	0
UTAH CONSTRUCTION CO.	IRON MT. (W. PORTION)	16,208			Completed	16,208	0	Arch			0	16,208	0
								Invert			0	16,208	0
WINSTON BROTHERS	COXCOMB (From E. Portal)	17,795			Completed	17,795	0	Arch	75	75.0	5,610	15,067	2,728
								Invert			0	0	17,795
BRODERICK & GORDON	E. EAGLE (From W. Portal)	9,440			Completed	9,440	0	Arch	12	89.9	1,079	9,440	0
	W. EAGLE (E. PORTION)	(15,845)			Completed	(15,845)	(0)	Invert			0	0	9,440
	East from Adit	7,871				7,871	0	Arch			0	15,845	0
	West from Adit	7,974				7,974	0	Invert	55	269.5	14,825	15,845	0
	TOTALS Ft.	132,926				132,926	0	Arch	87	76.9	6,689	130-173	2,753
	Miles	(25.18)				(25.18)	0	Invert	55	269.5	14,825	105,666	27,260
AQUEDUCT — FORCE ACCOUNT													
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	EAST COACHELLA	(96,605)				(96,605)	0						
	East Portion	28,512			Completed	28,512	0	Arch			0	28,512	0
								Invert			0	28,129	383
	West Portion	68,093			Completed	68,093	0	Arch	75	62.5	4,685	62,625	5,468
								Invert	45	477.0	21,465	25,051	43,042
	1000 PALMS NO. 1 (FromW.P.)	16,058				16,058	0	Arch			0	16,058	0
								Invert			0	16,058	0
	1000 PALMS NO. 2	3,838			Completed	3,838	0	Arch			0	3,838	0
								Invert			0	3,838	0
	WIDE CANYON NO. 1	14,305			Completed	14,305	0	Arch			0	14,305	0
								Invert	17	399.4	6,789	14,305	0
	WIDE CANYON NO. 2	848			Completed	848	0	Arch			0	848	0
								Invert	3	282.7	848	848	0
	SEVEN PALMS (From E. Prtl)	4,810				4,810		Arch			0	16,730	0
	(From W. Prtl)	11,920			Completed	11,920	0	Invert	20	476.0	9,519	16,730	0
	LONG CANYON	15,305			Completed	15,305	0	Invert			0	15,305	0
								Arch			0	15,305	0
	BLIND CANYON	6,836			Completed	6,836	0	Arch			0	6,836	0
								Invert			0	6,836	0
	MORONGO NO. 1	5,725			Completed	5,725	0	Arch			0	5,725	0
								Invert	7	259.4	1,816	5,725	0
	MORONGO NO. 2	1,892			Completed	1,892	0	Arch			0	1,892	0
								Invert			0	1,892	0
	SAN JACINTO	(68,849)			(787)	(43,252)	(25,597)						
	Cabazon Shaft to East Portal	8,880			0	8,880	0	Arch	7	16.4	115	263	35,434
	Cabazon to Lawrence	26,817	93	7.5	700	12,411	14,406	Invert	3	24.3	73	130	35,567
	Cabazon Pioneer	18,119	93	7.6	703	3,875	14,244						
	Lawrence Adit	5,651	93	5.4	498	2,759	2,892						
	Potrero Pioneer	15,163	93	6.6	618	4,626	10,537						
	Potrero to Lawrence	17,670	93	0.9	87	64.79	11,191	Arch	5	82.6	413	14,953	18,199
	Potrero Shaft to West Portal	15,482			Completed	15,482	0	Invert	0	0	0	14,953	18,199
	TOTALS Ft.	246,991	186	4.2	787	221,394	25,597	Arch	87	59.9	5,213	187,890	59,101
	Miles	(46.78)			(0.15)	(41.93)	(4.85)	Invert	95	426.4	40,510	149,800	97,191
DISTRIBUTION—CONTRACT													
GRIFFITH CO.	CAJALCO OUTLET	2,439			Completed	2,439	0					0	2,439
WEST CONSTRUCTION CO.	MONROVIA NO. 1 (From W.P.)	7,868			Completed	7,868	0					7,796	0
	MONROVIA NO. 2 (From Jct.1)	940			Completed	940	0				Completed	856	0
	MONROVIA NO. 3	(32,105)			(696)	(31,880)	(225)		78	36.9	2,880	4,501	27,593
	East from Adit	11,340			Completed	11,340	0						
	West from Adit				0	5,913							
	From West Portal	20,765	88	7.9	696	14,627	225						
DIXON, BENT BROS. & JOHNSON	MONROVIA NO. 4 (From W.P.)	8,133	75	11.7	874	7,455	678					0	8,133
	PASADENA (From West Portal)	12,140			Completed	12,140	0		72	18.2	1,313	10,466	1,672
	SAN RAFAEL No. 1 (FromW.P.)	4,047			Completed	4,047	0		75	17.1	1,284	2,337	1,691
	SAN RAFAEL No. 2 (FromE.P.)	5,669			Completed	5,669	0					0	5,661
	TOTALS Ft.	73,341	163	9.6	1,570	72,438	903	Full	225	24.3	5,477	25,936	47,189
	Miles	13.89			(0.30)	(13.72)	(0.17)	Section			(1.04)	(4.91)	(8.94)

COMPLETED TUNNELS

	CONTRACTOR	TUNNEL	Length in Miles	Work Started	Work Completed
AQUEDUCT	MORRISON-KNUDSEN CO.	Mecca Pass, No. 1, 2 & 3	1.13	7-17-33	2-10-35
	WEST CONSTRUCTION CO.	Whitewater Nos. 1 & 2	1.94	7-18-33	4-15-35
	SHOFNER & GORDON	Hayfield No. 2	1.03	7-8-33	7-27-35
	HAMILTON & GLEASON	Bernasconi	1.18	4-19-33	11-21-35
	J. F. SHEA CO., INC.	Cottonwood	3.81	6-14-33	12-29-35
	HUNKIN-CONKEY CON. CO.	Hayfield No. 1	1.84	10-21-33	1-9-36
	DIXON & BENT BROS.	W. Eagle—West Portion	2.02	9-8-33	3-12-36
	DRAVO CONTRACTING CO.	Valverde	7.20	6-7-33	10-18-36
		TOTALS	20.15		
DISTRIBUTION	J. F. SHEA CO., INC.	Sierra Madre	1.27	9-1-35	10-31-36
	DIXON, BENT BROS. & JOHNSON	Pasadena Extension	1.05	10-5-35	11-24-36
		TOTALS	2.32		

ION PROGRESS

CANAL, CONDUIT, SIPHON & PIPE LINES

January 31 to February 13, 1937

CANAL, CONDUIT AND SIPHON (MILES)

	Completed	Remaining
Excavation	132.68	12.99
Concrete	126.43	19.24
Back Fill	59.93	22.53

DISTRIBUTION PIPE LINE (MILES)

	Completed	Remaining
Excavation	26.00	20.01
Concrete	24.49	21.52
Back Fill	23.50	22.51

AQUEDUCT

SCHED. NO.	CONTRACTOR	FEATURES	Length In Feet	EXCAVATION—Feet			CONCRETE—Feet			BACKFILL—Feet		
				Period	To Date	Remain'g	Period	To Date	Remain'g	Period	To Date	Remain'g
1	AQUEDUCT CONSTR. CO.	Conduit and Siphons	22,025	0	22,025	0	0	22,025	0	0	22,025	0
2	BARRETT & HILP AND MACCO CORP.	Conduit and Siphons	30,569	0	29,984	585	1,067	26,641	3,928	0	22,900	7,669
3		Canal and Siphons	40,499	0	40,084	415	336	40,223	276	0	7,800	4,545
4	JAHN & BRESSI CONSTR. CO.	Canal and Siphons	53,218	0	53,218	0	0	53,218	0	0	3,075	0
6	WOOD AND BEVANDA	Siphon	15,521	0	15,521	0	0	15,521	0	0	13,043	2,478
7	BARRETT & HILP & MACCO CORP.	Canal and Conduit	27,707	0	27,707	0	0	27,707	0	0	12,170	0
8	WOOD AND BEVANDA	Canal and Siphons	49,339	0	49,339	0	0	49,339	0	0	7,090	800
9	UTAH CONSTRUCTION CO.	Canal, Conduit and Siphons	47,363	0	47,363	0	0	47,363	0	389	5,264	935
10	AQUEDUCT CONSTR. CO.	Canal and Siphons	44,505	0	44,505	0	0	44,505	0	0	3,594	1,256
11		Canal, Conduit and Siphons	44,003	0	43,445	558	6,927	28,207	15,796	0	3,083	7,240
12	THREE COMPANIES, INC.	Conduit and Siphons	32,977	874	31,527	1,450	0	24,663	8,314	0	23,030	9,947
13	AQUEDUCT CONSTR. CO	Canal, Conduit and Siphons	31,965	0	31,965	0	0	31,965	0	0	1,908	1,757
14	THOMPSON-STARRETT CO.	Conduit and Siphons	32,366	0	32,366	0	0	32,366	0	0	32,366	0
15		Conduit and Siphons	35,849	2,050	26,477	9,372	2,504	21,199	14,650	1,585	18,523	17,326
16		Conduit and Siphons	19,359	0	0	19,359	0	0	19,359	0	0	19,359
17	M. W. D.—FORCE ACCT.	Conduit and Siphons	21,950	0	21,950	0	332	21,649	301	301	17,365	4,585
18	J. F. SHEA CO., INC.	Conduit and Siphons	27,537	0	27,537	0	175	27,100	437	3,039	24,886	2,651
19	J .F. SHEA CO., INC.	Conduit and Siphons	37,364	376	561	36,803	0	0	37,364	0	0	37,364
20		Siphons	18,618	0	18,618	0	0	18,618	0	0	18,618	0
20 A & B	M. W. D.—FORCE ACCT.	Siphons	735	0	705	30	0	0	735	0	0	735
3	WINSTON BROS. CO. & WILLIAM C. CROWELL	Siphon (Gene Inlet)	1,877	0	1,850	27	0	1,798	79	0	1,478	320
4		Siphon (Copper Basin)	450	0	450	0	117	117	333	0	0	0
	TOTALS		635,796	3,300	567,197	68,599	11,458	534,224	101,572	5,314	238,218	118,967

DISTRIBUTION PIPE LINES

1	AMER. CONC. & STL. PIPE CO.	Precast Concrete Pipe	12,277	0	0	12,277	0	0	12,277	0	0	12,277
2	WESTERN PIPE & STL. CO.	Welded Steel Pipe	54,530	725	37,439	17,091	0	29,816	24,714	3,279	28,691	25,839
3	AMER. CONC & STL. PIPE CO.	Precast Concrete Pipe	20,124	0	0	20,124	0	0	20,124	0	0	20,124
4			25,867	0	25,867	0	0	25,867	0	0	25,867	0
5			24,895	2,278	23,583	1,312	2,144	23,419	1,476	2,673	22,636	2,259
6	J. F. SHEA CO., Inc.	Precast Concrete Pipe	27,348	2,140	23,037	4,311	2,135	22,930	4,418	2,148	21,242	6,106
7			30,044	0	0	30,044	0	0	30,044	0	0	30,044
8	UNITED CONC. PIPE CORP.	Precast Concrete Pipe	24,529	0	24,529	0	0	24,529	0	0	24,529	0
9			8,697	0	0	8,697	0	0	8,697	0	0	8,697
10			10,517	2,085	2,811	7,706	2,098	2,755	7,762	1,108	1,108	9,409
11			4,105	0	0	4,105	0	0	4,105	0	0	4,105
	TOTALS		242.933	7,228	137,266	105,667	6,377	129,316	113,617	9,208	124,073	118,860

Miscellaneous Construction

January 31 to February 13, 1937

AQUEDUCT PUMPING PLANTS AND APURTENANT WORKS

CONTRACTOR	FEATURES	EXCAVATION—Cu. Yds.				CONCRETE—Cu. Yds.				STEEL—Tons			
		Est.Quan.	Period	To Date	%	Est.Quan.	Period	To Date	%	Est.Quan.	Period	To Date	%
WINSTON BROS. CO. & WILLIAM C. CROWELL	Intake Plant	106,312	0	106,312	100.	18,145	681	9,772	53.9	1,712	145.9	555.0	32.4
	Gene Plant	92,600	0	89,754	96.9	13,370	192	10,065	75.3	2,052	140.0	1,542.3	75.2
WOOD AND BEVANDA	Iron Mt. Plant	358,700	4,645	276,240	77.0	19,897	1,150	13,571	68.2	1,707	64.1	816.7	47.8
L. E. DIXON CO.	Eagle Plant	250,000	393	232,102	92.8	21,122	1,311	4,027	19.1	2,160	0	156.7	7.3
L. E. Dixon & Case Const. Co.	Hayfield Plant	328,900	11,850	286,965	87.2	32,319	0	0		2,738	0	0	0
	TOTALS		16,888	991,373			3,334	37,435			350.0	3,070.7	

PARKER RESERVOIR—SIX COMPANIES, INC.

FEATURES	Est. Quan.	Period	To Date	Percent
Diversion Tunnels—Excav.	3,463 Ft.	0	3,463	100
Diversion Tunnels—Concrete	3,363	0	3,363	100
Dam, Forebay, etc., Excav.	2,107,700 C.Y.	75,478	1,187,532	56.3
Dam Concrete	260,000 C.Y.	0	0	0

CAJALCO RESERVOIR—GRIFFITH COMPANY

FEATURES	Est. Quan.	Period	To Date	Percent
Diversion Tunnel	2,000 Ft.	0	2,000	100
Dam & Dike Excavation	651,000 C.Y.	9,200	511,048	78.5
Dike Fill	4,182,000 C.Y.	52,100	3,546,100	84.8
Dam Fill	3,410,000 C.Y.	16,900	934,200	27.4

BOULDER TRANSMISSION LINE—FRITZ ZIEBARTH

FEATURES	Length-Line Mi.	Period	To Date	Percent
Footings Constructed	237.0	10	220	92.8
Towers Erected	237.0	10	202	85.2
Wire Strung	237.0	9	173	72.0

COMPLETED FEATURES

CANAL, CONDUIT AND SIPHON

CONTRACTOR	FEATURE AND NAME OR SCHEDULE	Length in Miles	Work Started	Work Completed
UNITED CONC. PIPE CO	LITTLE MORONGO SIPHON	0.13	2-27-34	8-20-34
M.W.D.—FORCE ACCT.	FAN HILL COND. & SIPHON	0.32	10-21-33	11-19-34
MORRISON-KNUDSEN CO.	BIG MORONGO & SAN ANDREAS SIPHONS	1.86	2-12-35	9-16-36
GRIFFITH COMPANY	Sch. No. 20-C, 21, 22, 23, 23A	12.79	1-5-35	10-13-36
JAHN & BRESSI Const. Co.	Sch. No. 5, CANAL & SIPHON	10.15	12-18-34	11-17-36
	TOTALS	25.25		

A group of California State legislators inspecting a canal section during their tour of the aqueduct on February 19 and 20.

State Legislators Visit Aqueduct

Members of the California State Legislature inspected construction work along the line of the aqueduct during a three-day trip, February 18, 19, and 20. Leaving Los Angeles on Thursday evening, February 18, the party went by train to Las Vegas. On Friday they inspected Boulder Dam, and then went by motor bus to Parker Dam and then back to Los Angeles along the line of the aqueduct.

Acting as host for the Board of Directors was Director Otto J. Emme of Los Angeles. M.W.D. Hydrographic Engineer C. C. Elder accompanied the group to explain the engineering details of the work inspected.

Members of the State Legislature making the trip were State Senator Harry C. Westover of Santa Ana, and Assemblymen John P. Pelletier, Jack B. Tenny, Miss Eleanor Miller, Gerald C. Kepple, Ben Rosenthal, E. V. Latham, Frank D. Laughlin, Thos. J. Cunningham, Fred Reaxes, Clyde A. Watson, Nelson D. Dilworth, Clarence R. Walker, Mrs. Jeanette E. Daley, and Paul A. Richie.

In addition to the legislators were Ray L. Chesebro, City Attorney of Los Angeles, Wm. H. Neal, Asst. City Attorney, County Counsel Everett W. Mattoon, and Ray Eberhard, Los Angeles attorney.

Los Angeles press representatives who went with the party were: Joseph Timmons, Examiner; Stanley Gordon, Times; and Charles Judson, Evening News.

MONTHLY REPORT REVIEWS ACTIVITIES ALONG THE AQUEDUCT LINE

(EDITOR'S NOTE: The following is a brief summary of some of the activities of the District as set forth in the monthly report of General Manager F. E. Weymouth, filed with the Board of Directors in February and covering work done in January.)

Legal Division

Further revisions of proposed amendments to the Metropolitan Water District Act were made, which then were placed in bill form and forwarded to Sacramento where introduction in the Assembly was secured on January 22. The bill was referred to the Committee on Municipal Corporations.

Miscellaneous Activities Division.

During the month of January, 390 applicants were cleared through the District's Labor Employment Office as eligible for work on the aqueduct. Of this number, 115 were made available for force account work, and 275 were made available for contract work.

For the purpose of providing an up-to-date record of the progress of construction work on the aqueduct, the production of a new motion picture was set under way during January. (See story page 3.)

Field Engineering and Construction

Safety Engineering — See Safety Awards, page 8.

Testing Laboratory — Approximately 297,800 barrels of cement were sampled and tested, and approximately 230,500 barrels of cement were shipped to the work during the month. Miscellaneous routine tests were made on whitewash materials, sealing compound, coal tar enamel and primer, and steel and fiber electric conduit.

Operation of Utilities—During the period from December 16, 1936, to January 15, 1937, 7,187,232 kw-hours of power was used; 15,114 long distance telephone calls were handled; and 4,608,630 cubic feet of water was delivered.

Aqueduct Construction—See progress tables pages 4 and 5. Progress of concreting on open work operations was delayed by subnormal temperatures during the month. Conduit construction is 36.9 miles complete out of 51.7 miles of this type of structure; canal lining 58.7 miles out of 62.2 miles; and siphon construction, 22.4 miles out of 26.3 miles.

Civil Engineering Division

Specifications—Bids were opened during the month on five sets of specifications, and eight sets of specifications were issued, including San Gabriel, Monrovia, and Eagle Rock Canyon crossings. (See story, page 3.)

Design—(Statistical Reports) Revisions and supplementary data required to bring the 1936 "Prospectus" up to date were outlined and prepared. Final revision will be completed in March, as it is planned to issue the new booklet dated February 28, 1937.

Materials — During January orders were placed for 97 tons of rail steel, all for the distribution system, and for 1,130 tons of billet steel. Of the latter 1,031 tons were ordered for the pumping plants, 96 tons for the distributing system, and 3 tons for use on the main aqueduct.

Distribution Division

Office Engineering—Work was carried on throughout the month on office studies and field investigations for the design and location of the Santa Ana tunnel line. Estimates were also carried on for the final design and location of the Eagle Rock-Palos Verdes cross-feeder.

Field Construction—See progress tables, pages 4 and 5.

Electrical Engineering Division

See progress tables on pages 4 and 5 for information as to the construction of transmission lines and pumping plants. Work was continued on designs and drawings for the purchase and installation of auxiliary plant equipment and piping systems. Specifications were issued for the pump delivery line head gates.

Personnel Division

The net turnover for all divisions for December 1936, was 8.28%. The turnover for November was 11.15%.

Purchasing Division

A total of 1,794 purchase orders were issued during January, and carload forwardings totaled 1,288.

Accounting and Costkeeping

The total cost of construction accomplished to January 31 was $122,826,341.

NEWS FROM FIELD AND OFFICE

This handsome aqueducker with the thousand dollar smile is Rex Finney, welder at the American Concrete and Steel Pipe Company's plant at Rochester on the distributing system. He is one of the hundreds of men who will be seen in the District's new motion picture. (Story, Page 3).

Another for the Aqueduct Book of Wonders: The Labor Office reports that on one of the recent rainy days, an applicant came in and asked if the rain would stop the crews from working in the San Jacinto tunnel. (The matter was taken up with Superintendent Leadbetter to see if the leak in the tunnel roof had been repaired.)

* * *

M.W.D. personnel transfers during the period February 1 to 15 included the following: Charles Bishop, Draftsman, from Division 4 to Division 3; Robert W. Doyle, Inspector, from Division 4 to 3; Hilbert J. Whiteman, from Division 1 to Division 5; General Clerk Edwin Osborn, from Division 4 to Medical; Junior Engineer Richard L. Morris, from Design (L.A.) to Division 3.

* * *

Prompt action by Gene "Smoke-eater" Reynolds, head of the L. A. Garage staff, in notifying the fire department, was responsible for saving a wooden apartment house on Olive St. (across from the M.W.D. garage) from being destroyed by fire. Gene smelled the smoke and turned in the alarm before the occupants of the building knew it was on fire. Much to the chagrin of the other members of the A. O. L. A. G. F. C. (Amalgamated Order of L. A. Garage Fire Chasers) the firemen arrived before the blaze reached spectacular proportions.

Aqueduct Temperatures
February 1 to February 15

	Max.	Min.
Div. 1	74°	35°
Div. 2	79°	33°
Div. 3	70°	30°
Div. 4	69°	40°
Divs. 5 and 6	70°	29°

Looking for the "birdie" are L. C. "Kid" Gray, left, and Virgil Conley. They are crane operators on the erection of steel for the Gene Pumping plant in Division 1. The Consolidated Steel Corp. have the sub-contract for this work.

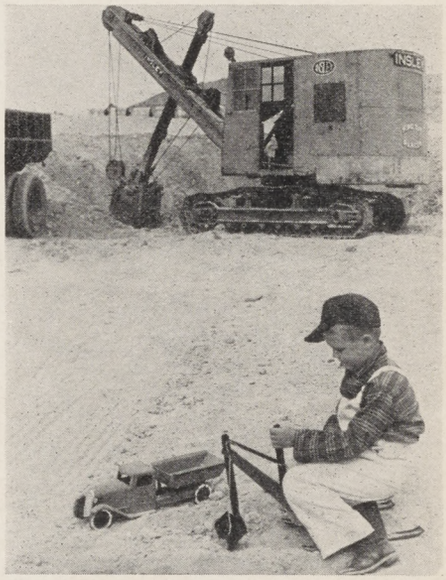
Official report on the Employees Valentine's Day Dinner-Dance, as submitted by the Chairman, Merrill Johnson, of Purchasing: "Feminine temperatures rose, and pulses beat erratically on the night of February 13, when Michael Whalen, the guest star of the Employees Dinner-Dance, was introduced. (Ed. note: For the benefit of the uninformed, Whalen is the very good looking gent who played the part of the rich papa in "Poor Little Rich Girl".) Several lady aqueduckers, who were so foolish as not to attend the party, are known to have torn their hair when they learned what they had missed. (More Ed. note: You have no one to blame but yourselves, gals—the party was advertised in advance.) More than 300 people attended the affair, which was voted a first class success. For those who still retained temperature control after the Whalen introduction—the hit of the evening was an impromptu dance by Jackson Hill, a lineman in the Berdoo Mechanical Division."

* * *

The Distribution Division society correspondent is almost up to date now. He reports that William Hall Matchette, Chainman at Cajalco, was married on February 1 to the former Miss Mary Dollahite of Longview, Texas. (Note from Ed. to the Corre.: July 1, 1937, is the absolute deadline for reporting all remaining February society events.)

* * *

Clark Keely, formerly in the Statistical Section of the Design Division, is now the proud papa of a third addition to his family, a baby girl born on February 14. When Clark was with the M.W.D. one of his jobs was to edit the progress tables in the NEWS. He now is engaged in private engineering business in Los Angeles.

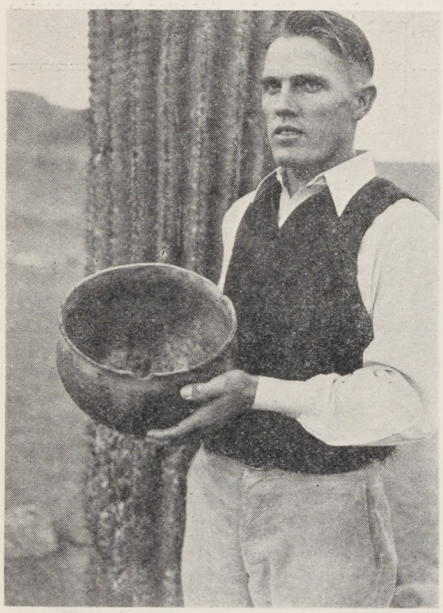


This young contractor is Dave May, Jr., son of the Office Engineer at Division 2. The grapevine has it that there is a big battle now going on in the May household between this contractor and the Office Engineer. Young Dave and his dad can't seem to come to an agreement on the classification of the material being excavated.

All Pipe Placed in Distribution Sch. 5P

Another link in the distributing system neared completion on February 21, when the last joint of precast concrete pipe of Schedule 5P was placed in the trench by crews of the American Concrete and Steel Pipe Company. This schedule is constructed of concrete pipe sections, each of which are 12 feet long, have an inside diameter of 12-ft. 8-in. with walls 13 inches thick, and each section weighing approximately 42 tons. These giant pipe sections are believed to be the largest ever to have been built.

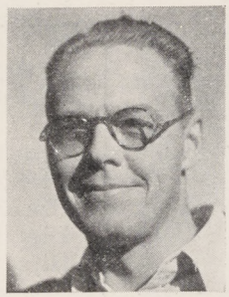
This schedule is 24,888 feet long and includes 2,071 joints of pipe. It ties in at 5th Street in Ontario with Schedule 6P, also precast concrete, and now under construction by the J. F. Shea Company. The first pipe section was placed on Schedule 5P on September 15, 1936. Placing operations are under the direction of Clyde Grant. Hugh Jones is the District's senior inspector, and the work is being constructed under the direction of H. R. Bolton, Resident Engineer for the M.W.D. The contractor's fabricating plant is located at Rochester, a number of miles east of Upland.



Bud Graham, senior instrumentman at Division 1, exhibits an ancient Indian bowl which he found in the Copper Basin country. The pottery bowl, which was excellently preserved, was found by Bud while he was doing a little detective work in connection with a pile of bones which came to light under mysterious circumstances in the same area. These bones are believed to be . . . (End first reel—come early next week and get a good seat).

Who's Who On the Aqueduct

Lewis H. Tuthill



D. C. May

C. P. Weaver

LEWIS H. TUTHILL

Testing Engineer, M. W. D.

Born Nov. 24, 1899, in Philadelphia, Pa. . . . Graduated from School of Engineering, Oregon State College, Corvallis, Ore., in 1920. . . . '20-'24, office and field engineering in connection with design and construction of irrigation systems for Grants Pass, Ore., and Merced, Calif., Irrigation Districts. . . . Since 1924 has specialized in the testing and use of concrete materials and concrete, and in the technical control of concrete production operations. Was concrete engineer, and testing engineer on the following projects . . . '25, Exchequer Dam . . . '26, Melones Dam. . . . '27, Golden Gate Atlas central mixing plant. . . . '28-'29, Pardee Dam. . . . '30, Calaveras Dam. . . . Has been Testing Engineer for the M.W.D. since February 1, 1931.

D. C. MAY

Office Engineer, Division 2, M. W. D.

Born June 1, 1903, in Riverside, California. . . . Graduated from the University of Southern California in 1925. . . . 1925-1930, Los Angeles Department of Water and Power, topographic draftsman. . . . With M.W.D. since 1930. . . . '30-'33, preliminary locations, designs, and estimates. . . . '33-'34, Acting Chief Draftsman, Banning Field Office. . . . '34 to date, Office Engineer, Division 2 Headquarters. . . . Is known along the line as "Dave."

C. P. WEAVER

Superintendent of Operations, M. W. D.

Nickname is "Bud" . . . Born June 21, 1889, in Norristown, Pa. . . . Civil Engineering at Drexel University. . . . Started with Stone & Webster in 1910, and was employed by this firm for a total of 20 years. . . . 1914-1916 with Shell Oil Company as field engineer on tank farm and refinery construction, Martinez refinery. . . . During the years he worked for Stone & Webster he was engaged in field engineering on location and construction projects, included among which were: Philadelphia and Western Ry.; Big Creek Transmission line; River Station of Buffalo General Electric Co.; Caribou Project of Great Western Power Co.; B. F. Goodrich plant construction at Akron, O.; Union Switch and Signal Co., Swissvale, Pa.; Hog Island Shipyard; Steel Plant construction for Keystone Steel and Wire Co., Peoria, Ill.; Osage River Plant transmission lines of Union Elect. Light and Power Co.; Long Beach Steam Plant. . . . Has been with the M.W.D. since 1932, and has been Supt. of Operations since 1934. Is responsible for the maintenance and operation of all construction utilities for the District.

Safety Flag Awards

Coachella Tunnels

Wide Camp won the safety flag award for January, with 37,322 man-hours worked, and no lost-time accidents. Morongo, Fan Hill, Long, and 1000 Palms also worked the entire month without lost-time accidents.

San Jacinto Tunnel

Tunnel Driving:

Cabazon was awarded the tunnel driving safety flag for January.

Tunnel Concreting:

East Portal won the safety flag for tunnel concreting operations for the month of January.

Banning-Berdoo Shops

Berdoo was awarded the flag for the month of January in the contest between these two shops. Berdoo worked 15,788 man-hours with no lost-time accidents.